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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/988,420 | 11/16/2001 | Anthony Cake | 455610-2490 | 8576 |

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EXAMINER

RICHER, AARON M

ART UNIT PAPER NUMBER

2628

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/988,420 | CAKE ET AL. | |
| | Examiner | Art Unit | |
| | Aaron M. Richer | 2628 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 45-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 45-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 14, and 45 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claim 3 is objected to because the most recent claim listing filed does not reflect previous amendments to the claim. However, since the remarks accompanying the claim listing make clear that the claim should be amended according to amendments filed May 23, 2006 and August 21, 2006, the claim is interpreted for prior art purposes as if those amendments were in the most recent claim listing. The remarks imply that incorrect claim 3 was simply a typographical error. However, in case the claim listing was not a typographical error, the 35 USC 112 rejection of claims 3-5 have not been dropped.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 3-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 3 recites the limitation "said output pin of said second element" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim. From the specification, the examiner's best interpretation is that the applicant meant to claim "said

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input pin of said second element" which would have antecedent basis in claim 2.

Consequently, this is how the claim will be interpreted in this Office Action.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 10-15, 17, 18, 20, 45, 46, 48, 49, and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Rogers (U.S. Patent 5,497,500).

8. As to claims 1, 14, and 45, Rogers discloses a method for generating a graphical representation of a processing web of an oscilloscope for implementation and control of the oscilloscope (col. 3, lines 25-39; col. 10, lines 25-30; the invention is for controlling an instrument, one of which can be an oscilloscope), comprising:

determining a first processing element of said processing web corresponding to a first processing apparatus of the oscilloscope for processing a signal (fig. 22; a number of processing elements are shown);

placing a first processing element in a particular location based at least in part upon its function and various inputs to and outputs from said first processing element (fig. 19a-k; fig. 22-25; fig. 47-122; col. 26, line 22-col. 27, line 40; a number of elements placed by a user or that can be placed by a user are shown);

determining a second processing element of said processing web corresponding to a second processing apparatus of the oscilloscope for processing a signal (fig. 22; a number of processing elements are shown);

placing said second processing element in a particular location based at least in part upon its function, various inputs to and outputs from said second processing element, and a relationship between said second processing element and said first processing element (fig. 19a-k; fig. 22-25; fig. 47-122; col. 26, line 22-col. 27, line 40; a number of elements placed by a user or that can be placed by a user are shown);

connecting said first processing element to second processing element indicating a flow of data therebetween so that the signal processed by the first processing apparatus is forwarded to the second processing apparatus (fig. 19a-k; fig. 22-25; fig. 47-122; col. 26, line 22-col. 27, line 40; a number of elements placed by a user or that can be placed by a user are shown) upon a request from said second processing element to said first processing element for said signal (col. 21, lines 37-46; a virtual instrument receives a request for signal from a "instrument use node" and signal goes from the virtual instrument to the instrument use node so the node can execute its next step);

wherein said first processing element is a waveform acquisition processing element (fig. 19k, see "wave" portion);

and wherein said second processing element is a display processing element (fig. 22, see "response graph").

9. As to claims 2 and 3, Rogers discloses a connecting step connecting an output pin of said first element to an input pin of said second element, using a line (fig. 19a-k, fig. 22; lines are clearly used to connect a first element output to a second element input).

10. As to claim 10, Rogers discloses a method wherein said first processing element is updated at a faster rate and said second processing element is updated at a slower rate (col. 47, line 53-col. 48, line 5; a function waiting on another function is disclosed).

11. As to claim 11, Rogers discloses a method wherein said update of said first processing element and update of said second processing element are synchronized (col. 47, line 53-col. 48, line 5; a synchronization method for functions waiting on other functions is disclosed).

12. As to claim 12, Rogers discloses a method wherein said update of said first and second processing elements is controlled by an update processing element (col. 47, line 53-col. 48, line 5; the execution subsystem which provides a "wake up" to another function reads on an "update processing element").

13. As to claim 13, Rogers discloses a method wherein a viewing object may be placed at a location on the graphical representation to see a current, live output at that location (col. 39, lines 19-20; a "real time chart" option is given in a menu for configuration of graphical objects).

14. As to claims 15 and 46, Rogers discloses determining a third processing element of said processing web corresponding to a third processing apparatus of the oscilloscope for processing a signal;

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and placing said third processing element in a particular location based at least in part upon its function in said processing web, various inputs to and outputs from said second processing element, and a relationship between said third processing element and said first and second processing elements so that the signal processed by the first processing apparatus is forwarded to the third processing apparatus, and the signal processed by the second processing apparatus is forwarded to the third processing apparatus;

wherein said third processing element performs an intermediate processing step between said first processing element and said second processing element (fig. 19a-k; fig. 22-25; fig. 47-122; col. 26, line 22-col. 27, line 40; a number of intermediate processing elements with multiple inputs are disclosed).

15. As to claims 17 and 48, Rogers discloses determining a third processing element of said processing web corresponding to a third processing apparatus of the oscilloscope for processing a signal;

and placing said third processing element in a particular location based at least in part upon its function in said processing web, various inputs to and outputs from said second processing element, and a relationship between said third processing element and said first and second processing elements so that the signal processed by the first processing apparatus is forwarded to the third processing apparatus, and the signal processed by the second processing apparatus is forwarded to the third processing apparatus;

wherein said third processing element is a display trace output including at least one processing function (fig. 121).

16. As to claims 18 and 49, Rogers discloses determining a third processing element of said processing web corresponding to a third processing apparatus of the oscilloscope for processing a signal;

and placing said third processing element in a particular location based at least in part upon its function in said processing web, various inputs to and outputs from said second processing element, and a relationship between said third processing element and said first and second processing elements so that the signal processed by the first processing apparatus is forwarded to the third processing apparatus, and the signal processed by the second processing apparatus is forwarded to the third processing apparatus;

wherein said third processing element is a parameter output (col. 39, lines 19-20; a real time chart reads on a parameter output).

17. As to claims 20 and 51, Rogers discloses a method wherein each of said first and second processing elements includes an indication of the number of inputs and outputs thereof (fig. 22, fig. 104, etc., every diagram with elements includes a number of input and output pins).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 4-9, 19, 21, 50 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers in view of Zink (U.S. Patent 6,738,964).

20. As to claim 4, as best interpreted, Rogers does not expressly disclose a line drawn to include a plurality of designations based upon a type of data being carried thereon. Zink, however, discloses different colors used for different types of data being carried on wires (col. 8, lines 26-37). The motivation for this is to illustrate the flow of both data and control information (col. 8, lines 26-37). It is further noted that much like the Rogers reference, the Zink reference is concerned with graphically representing a system for processing signals (col. 2, lines 31-44). It would have been obvious to one skilled in the art to modify Rogers to designate a type of data being carried on a wire in order to illustrate the difference between data and control information as taught by Zink.

21. As to claim 5, as best interpreted, Zink discloses a method wherein said plurality of designations are colors (col. 8, lines 26-37).

22. As to claim 6, Zink discloses a method wherein said at least one pin of said first processing element and said at least one pin of said second processing element are coded based upon a type of data to output therefrom, or received thereby, respectively (fig. 9, circles are used by one type, triangles are used by another type).

23. As to claim 7, Zink discloses a method wherein said coding is by color (col. 8, lines 26-37; the wires coming out of the pins are of different colors, which effectively means that the pins themselves are coded by color as well).

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24. As to claim 8, Zink discloses a method wherein said coding is by symbol (fig. 9, circles are used by one type, triangles are used by another type).

25. As to claim 9, Zink discloses a method wherein said coding is by graphical designation (fig. 9, circles are used by one type, triangles are used by another type; this reads on a graphical designation).

26. As to claims 19 and 50, Zink discloses a method wherein said connection between said first processing element and said second processing element is provided in a color indicative of the type of data flowing therebetween (col. 8, lines 26-37).

Motivation for combining the Zink and Rogers references can be found in the rejection of claim 4.

27. As to claims 21 and 52, Zink discloses a method wherein said inputs and outputs are provided in a color indicative of the type of data to be received or output thereon (col. 8, lines 26-37; the wires coming out of the pins are of different colors, which effectively means that the pins themselves are coded by color as well). Motivation for combining the Zink and Rogers references can be found in the rejection of claim 4.

28. Claims 16 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers.

29. As to claims 16 and 47, Rogers discloses determining a third processing element of said processing web corresponding to a third processing apparatus of the oscilloscope for processing a signal;

and placing said third processing element in a particular location based at least in part upon its function in said processing web, various inputs to and outputs from said

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second processing element, and a relationship between said third processing element and said first and second processing elements so that the signal processed by the first processing apparatus is forwarded to the third processing apparatus, and the signal processed by the second processing apparatus is forwarded to the third processing apparatus (fig. 19a-k; fig. 22-25; fig. 47-122; col. 26, line 22-col. 27, line 40; a number of processing elements with multiple inputs are disclosed);

Rogers does not disclose a method wherein said third processing element is a static memory input. However, Official notice has been taken of the fact that storing output of processing elements in static memory is well-known in the art (see MPEP 2144.03). It is also noted that given the large amount of functions already disclosed by Rogers, including display functions and processing functions, and the fact that Rogers does store outputs in memory, it would not be difficult to add a graphical representation of static memory to the other graphical representations disclosed by Rogers. It would have been obvious to one skilled in the art to modify Rogers to include a static memory input in a graphical representation in order to allow a user to more easily store data in memory.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M. Richer whose telephone number is (571) 272-7790. The examiner can normally be reached on weekdays from 8:30AM-5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMR
11/22/06



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SUPERVISORY PATENT EXAMINER